(p-value < 0.0001). **CONCLUSIONS:** After adjusting for patient and hospital factors, hospital quality scores (both AMI and HF) were not strongly associated with the large amounts some hospitals charge beyond the standard reimbursement amount. The lack of strong associations suggests that either: (1) quality scores were not indicators of hospital resource utilization, or (2) hospital charges were not driven by the expenses incurred as a result of providing high quality services, furthering the argument for increased cost transparency from health care providers.

PCV130

TREATMENT PATTERNS OF CARE FOR NON-VALVULAR ATRIAL FIBRILATION PATIENTS AT A NATIONAL INSTITUTE OF CARE IN PERU

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OBJECTIVES: To characterize treatment patterns and health care resource utilization among adults diagnosed with non-valvular atrial fibrillation (NVAF) at the Social Security system (EsSalud) in Peru. **METHODS:** Observational retrospective study based on medical chart review from the National Cardiovascular Institute (INCOR). The study included patients over 18 years of age, with a confirmed diagnosis of NVAF based on physician diagnosis and ICD-10 code, treated at INCOR NVAF in 2011, allowing for a minimum potential follow-up of one year. Clinical study enrollment or AF patients with valvular origin were excluded. For each eligible patient, information on patient and disease characteristics, treatments received, clinical outcomes, and AF-related health care resource utilization was captured. Patients were randomly selected from an electronic database until the predetermined sample size of 83 eligible patients was met. **RESULTS:** The study population median age was 68.8 years, 66.3% were male. CHADS2 distribution was: 0-7.2%, 1–18.1%, 2-18.1%, 3–32.5%, 4–18.1%, 5–6 % and 6-0%. 89.2% of patients with NVAF received at least one prescription during follow-up; distribution according to drug classes: 77.0% heart rate control, 75.7% antiplatelets, 60.8% antihypertensives, 50.3% vitamin K antagonists and 44.6% anti-arrhythmic. A median of 30.2 diagnostic tests including electrocardiograms and INR tests were performed per patient (range: 1 - 144). Twenty-three percent of patients had at least one procedure with implantation of a pacemaker being the most frequent procedure, followed by AV node ablation. 30% of patients were hospitalized at least once during the study follow up period. Median hospital stay was 12.6 days (range:1-115). **CONCLUSIONS:** NVAF management is heterogeneous at INCOR, particularly for rhythm control, anticoagulation monitoring, and the utilization of anticoagulant therapy.

RESEARCH POSTER PRESENTATIONS – SESSION III

SELECTED HEALTH CARE TREATMENT STUDIES

HEALTH SERVICES – Clinical Outcomes Studies

PHS1

COMORBIDITIES AND HEALTH RESOURCE USE OF CHRONIC PLAQUE PSORIASIS PATIENTS IN CANADA: A MATCHED-COHORT STUDY

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OBJECTIVES: Compare the comorbidities and health care resource utilization of chronic plaque psoriasis compared to a matched control cohort in a large, Canadian, real-world dataset. **METHODS:** This was an observational, retrospective study of patients ≥ 18 years who, between 2008 and 2012 received a diagnosis of psoriasis and at least 1 treatment. Data were retrieved from the Southwestern Ontario (SWO) database, which is a representative primary care database of over 325,000 unique patient records in Ontario, Canada. Comorbidities and health resource utilization were recorded in the patient chart as per their health care provider. A matched control cohort was constructed based on age, gender and ethnicity. Differences between psoriasis and control groups were compared using paired and independent samples t-tests. **RESULTS:** A total of 7,776 patients in the SWO database (n=325,618) had a diagnosis of psoriasis and received at least 1 treatment between January 1, 2008 and December 31, 2012. Of these, 85% had chronic plaque psoriasis. Over half of patients with chronic plaque psoriasis were diagnosed with hypertension (61%, similar in the control group), 11% had diabetes (vs 7% in control group), 4% had depression and/or anxiety disorders (vs 1%), 6% had insomnia (vs 1%). Thirty-two percent (32%) were overweight and 24% were obese (vs 27% and 19%, respectively). Patients with moderate to severe plaque psoriasis (28%) were more likely to visit their family physician than the control group (9 vs 3 visits per year, respectively). These patients missed more days of work than the control (11 vs 4, respectively) and recorded more work absences (2 vs 0.03 absence notes per year). **CONCLUSIONS:** Chronic plaque psoriasis is a significant health condition and is associated with higher rates of comorbidity and use of health services in Canada, especially in patients with a moderate-severe condition.

PHS2

RACIAL/ ETHNIC AND GENDER DIFFERENCES IN SEVERITY OF DIABETES-RELATED COMPLICATIONS, HEALTH CARE RESOURCE USE, AND COSTS AMONG MEDICARE ADVANTAGE RECIPIENTS

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OBJECTIVES: Few studies have assessed racial/ethnic and gender differences in diabetes-related complications, health care resource utilization (HRU) and costs in patients with type 2 diabetes mellitus (T2DM). This study explored the association of race/ethnicity and gender with complications severity, HRU, and costs among Medicare Advantage patients. **METHODS:** A retrospective cohort study was performed using medical and pharmacy claims of 333,576 Medicare members enrolled from 1/1/2010 to 12/31/2011, aged 18 to 89, and with ≥ 1 medical claim with primary diagnosis or ≥ 2 medical claims with secondary diagnosis of T2DM (ICD-9-CM 250.x0 or 250.x2). Complications severity was assessed with the Diabetes Complications Severity Index, with scores of 0 (no complications) through 5+ (five or more). HRU was reported by mean (standard deviation [SD]) number of outpatient, inpatient, and emergency room [ER] visits. Costs were reported as means (SD) of medical, pharmacy and total health care costs evaluated. Associations of race/ethnicity and gender with the three outcomes were evaluated using generalized linear regression models. **RESULTS:** The sample was older (70.81 ±8.8 years) and 80% White. Being Hispanic, Black, or male was associated with a higher prevalence of more severe T2DM complications; this disparity was more pronounced among females, with the odds of having more severe complications being higher for Hispanic and Black females compared to White females (Hispanic v. White odds ratio [OR], 1.40; 95% confidence interval [CI], 1.32-1.48), and (Black v. White OR, 1.22; 95% CI, 1.19-1.25). Regardless of gender, Blacks had more ER visits than Whites. Whites, particularly females, incurred the highest total annual health care costs, (White female costs: $13,086; 95% CI, $12,935-$13,240) vs. (Hispanic female costs: $10,732; 95% CI, $10,406-$11,067). **CONCLUSIONS:** Racial/ethnic and gender differences exist in certain T2DM clinical and economic outcomes. Following these specific patients' progress more closely may prevent or delay complications and decrease long term costs

PHS3

MATERNAL MORBIDITY AND MORTALITY IN ECLAMPTIC PATIENTS: A CLINICAL STUDY IN BAHAWALPUR, SOUTHERN PUNJAB WITH SOCIO-ECONOMIC ASPECTS

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OBJECTIVES: Eclampsia remains a major cause of maternal morbidity and mortality worldwide. In underdeveloped countries, the mortality rate is even higher due to the poor access to the health care, socio-economical problems and the cost of the treatment involved therein. To find out the trends and maternal outcomes in eclampsia in the region, a study was carried in a tertiary care unit i.e. Department of Gynaecology/Obstetrics, Bahawal Victoria Hospital (BVH), Bahawalpur, Pakistan, with the collaboration of Department of Pharmacology, King Saud University, Saudi Arabia. **METHODS:** A total no. of 67 (n = 67) patients presented with eclampsia were assessed for maternal morbidity and mortality outcomes during the period of 6 months. A prospective study using a cross- sectional descriptive design was used. The patients were evaluated for various parameters that included biological aging, type of complications, literacy level, socio-economical status, and parity. **RESULTS:** The calculated mean age of the patients was 25.69 ± 8.42 years. The incidence was found to be higher in the extremes of the reproductive life (bimodal variation), and during ante partum stage (55.2%) followed by postpartum (31.3%) and intrapartum period (13.4%). Among the patients examined, 44.8% were found with no formal education, 25.4% having primary education only, and 74.6% patients belonging to the lower socio-economic class. The incidence of eclampsia was higher in nulliparous women (58.2%) as compared to multiparous (31.3%) and grand multiparous women (10.4%). The overall complication to non-complication ratio was found to be 38.8% to 61.2%, with morbidity and mortality rate of 38.8 % and 13.4%, respectively. **CONCLUSIONS:** Keeping these finding in views, we may conclude that poor education, lack of effective health policies, and socioeconomic problems may contribute significantly to the morbidity and mortality associated with eclampsia in under developed regions.

PHS4

IMPACT OF CARDIOVASCULAR COMORBIDITIES ON PATIENTS WITH TYPE 2 DIABETES MELLITUS: A SYSTEMATIC REVIEW

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OBJECTIVES: To conduct a thorough search of medical literature investigating the prevalence of cardiovascular comorbidities and its impact on health care costs, quality of life, and mortality among patients with type 2 diabetes mellitus (T2DM). **METHODS:** Keywords and Medical Subject Headings were used to perform a search using MEDLINE, Cochrane, CINHAL Plus, and PsychINFO. Eligible studies were: published in English before June 2013, included cardiovascular or other comorbidities of T2DM, outcome researched was prevalence, economic burden, age of onset, quality of life or mortality of cardiovascular or other comorbidities, and the sample size was larger than 50. **RESULTS:** Seventy-six studies and reports were used in this systematic review. Cardiovascular disease (CVD), including hypertension, was the most prevalent complication of T2DM. Total health care costs of diabetic patients with CVD ranged from $10,450 to $14,414 per-person per-year in the United States. Quality of Life was found to be significantly lower in diabetes patients with cardiovascular complications, while mortality was found to be much higher than either illness alone. **CONCLUSIONS:** Prevalence of CVD is very high in T2DM patients with hypertension being the most prevalent. The additional cost burden due to CVD is also higher than any other comorbidity except End Stage Renal Disease (ESRD). Considering the much higher prevalence of CVD, compared with ESRD, increased cost due to CVD is likely to be higher than any other comorbidity at a population level. The quality of life was much lower in patients with CVD and diabetes, but not as low as in patients with comorbid painful neuropathy. Increased mortality was caused by the combination of diabetes and CVD. Cardiovascular complications in diabetes patients have a significant impact on the economic burden, quality of life, and the mortality rates. This research was funded by Bristol Myers Squibb.

PHS5

THE ASSOCIATION BETWEEN LDL LEVELS AND CVD WITHIN THE COMMUNITY: AN OBSERVATIONAL STUDY

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OBJECTIVES: Evidence from recent studies on statin treatment intensity for secondary prevention supports targeting lower low-density lipoprotein (LDL) levels through higher intensity statin treatment. This study aims to assess whether achievement of the lower LDL threshold is associated with a reduction in cardiovascular outcomes. **METHODS:** Retrospective cohort study of adult members of a large health fund with pre-existing ischemic heart disease (IHD) treated with statins for at least one year during 2006-2010, and with a routine, fasting serum LDL test measures. The incidence of the composite Major Adverse Cardiac Events (MACE) was compared between three patient groups according to their achieved LDL: (>70·1-100mg/dl (Moderate) vs. >100·1-130mg/dl (High), and >70·1-100mg/dl (Moderate) vs. ≤70mg/dl (Low)). **RESULTS:** Of 52,177 patients treated with statins, 11,647 had an achieved LDL (post-statin treatment) of 70mg/dl or below, 29,097 between 70.1-100mg/dl and 11,433 between 100·1-130mg/dl. Mean follow-up time from achieved LDL to MACE was 3·6 years (±1·5), with 10,955 subjects incurring a MACE during follow-up. LDL levels 70·1-100mg/dl compared to 100-130mg/dl were associated with a significant 8% reduction in the incidence of MACE (hazard ratio [HR]=0·92 [95% CI, 0·88-0·97; p=0·001]), while ≤70 mg/dl compared to 70·1-100mg/dl was not (HR=0·98 [95% CI, 0·93-1·03; p=0·374]). Results remained consistent in propensity score–adjusted Cox regression, a sensitivity analysis, and in a sub-group analysis, with no demonstrated advantage in MACE outcomes for achieved LDL levels ≤70mg/dl. **CONCLUSIONS:** Among a real-world population of IHD patients adherent to their statin treatment, achieving LDL levels below 100mg/dl is associated with significant clinical benefit, whereas no additional benefit is gained by achieving LDL levels below 70mg/dl.

PHS6

NATURAL HISTORY OF METASTATIC PROSTATE CANCER IN CLINICAL PRACTICE

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OBJECTIVES: To describe the natural history of metastatic prostate cancer in patients treated with androgen deprivation therapy (ADT) or orchiectomy in clinical practice. **METHODS:** Newly diagnosed prostate cancer patients (2004-2010) treated with ADT/orchiectomy were identified from the Henry Ford Health System tumor registry. Patients were followed through July 31, 2012. Data on disease progression (rising prostate-specific antigen [PSA] and presence of metastases) were collected from medical records and automated data. Time from initial diagnosis to metastases was determined by Kaplan-Meier analyses. **RESULTS:** We identified 702 patients; 58% ≥70 years and 50% African American; 56% of patients were initially diagnosed at stage II, 10% at stage III, 22% at stage IV, and 12% had missing/unknown stages. Three percent received orchiectomy; 97% received ADT. Comprehensive data on testosterone levels were not available. During follow-up, an additional 8% of patients progressed to metastatic disease (N=207): 52% (107) had evidence of postcastration disease progression (17% rising PSA, 28% presence of ≥2 new bone metastases, 55% met both criteria). Bone was the most common site, occurring in 74% of metastatic patients; 59% of metastatic patients developed bone mestastases to spine. Other metastatic sites included distant lymph nodes (12%), lung (8%), central nervous system (7%), and other (14%). Mean follow-up time was 3.8 years. Kaplan-Meier analysis indicated that by 5 years after initial diagnosis, 13% of stage II and 36% of stage III patients developed metastases. **CONCLUSIONS:** While the incidence of cancer is routinely collected via registries, information on progression or recurrence is sparse. This study is one of few to present information on the natural history and disease progression of ADT/orchiectomy-treated prostate cancer in a clinical setting. In this study, we found 30% of patients were diagnosed with or progressed to metastatic disease. This assessment of medical need may inform future resource planning.

PHS7

THE DIAGNOSTIC AND CLINICAL VALUE OF ANTI-MUTATED CITRULLINATED VIMENTIN ANTIBODIES IN RHEUMATOID ARTHRITIS

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OBJECTIVES: Objective To assess the diagnostic and clinical value of anti-mutated citrullinated vimentin (anti-MCV) antibody for rheumatoid arthritis (RA) via comparing with rheumatoid factors (RF) and anti-cyclic citrullinated peptide antibodies (anti-CCP). **METHODS:** Anti-MCV and anti-CCP were determined using enzyme-linked immunosorbent assay (ELISA), and meanwhile, the RF was detected in 88 patients with RA and 16 patients with other rheumatic diseases. Receiver operating characteristic (ROC) curve was operated to calculate the areas under the curve of RF, anti-CCP and anti-MCV, the max Youden indexes were also calculated to determine the optimum testing threshold and the corresponding sensitivity and specificity, the diagnostic significance of RF, anti-CCP and anti-MCV in RA were analyzed. The correlation of erythrocyte sedimentation rate (ESR) and anti-MCV, and C reactive protein (CRP) and anti MCV were evaluated by linear-regression analysis. **RESULTS:** The areas under the curve of RF, anti-CCP and anti-MCV were 0.775, 0.847 and 0.873, respectively. The max Youden indexes of RF, anti-CCP and anti-MCV were 0.534, 0636 and 0.71, respectively, and the corresponding sensitivity and specificity were 78.4% and 75%, 63.6% and 100%, and 77.3% and 93.7%, respectively. A correlation between ESR and anti-MCV antibody, and CRP and anti-MCV antibody levels was observed. **CONCLUSIONS:** The sensitivity of anti-MCV is higher compared to anti-CCP and is comparable to RF, and its specificity is higher than that of RF. Consequently, anti-MCV can be served as a diagnostic index for RA and its expression is associated with disease activity of RA.

PHS8

SURVIVAL ANALYSIS FOR GASTRIC CANCER DETECTED BY ENDOSCOPIC SCREENING

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OBJECTIVES: The effectiveness of endoscopic screening for gastric cancer has been continually evaluated; however, only a few studies have reported its effectiveness. Notably morality reduction from cancer screening has not yet been rigorously evaluated in survival analyses, but an important requirement for cancer screening is improving survival. We performed survival analysis for gastric cancer detected by endoscopic screening and compared the results with those of survival analysis for gastric cancer detected by radiographic screening and outpatients. **METHODS:** The subjects of our study were selected from gastric cancer cases registered in 4 cities in the Tottori Cancer Registry from 2001 to 2006. The target age group was defined as the age in which gastric cancer was diagnosed from 40 to 79 years. Follow-up was continued from the date of diagnosis to the time death from gastric cancer or up to December 31, 2011. The survival of 3 groups at 5 and 10 years were compared using the Kaplan-Meier method with the log-rank test. **RESULTS:** There were 347 subjects selected for endoscopic screening, 166 for radiographic screening, and 980 as outpatients. The 5-year survival rates were follows: 91.2 ± 1.5% (95% CI: 87.6-93.8) for endoscopic screening, 84.3 ± 2.9% (77.7-89.1) for radiographic screening, and 66.0 ± 1.6% (62.8-68.9) for outpatients. The 10-year survival rates were follows: 88.5 ± 2.0% (83.9-91.9) for endoscopic screening, 80.1 ± 3.6% (71.9-86.2) for radiographic screening, and 64.6 ± 1.6% (61.3-67.6) for outpatients. The survival rates were significantly different in the 3 groups (P < 0.001). **CONCLUSIONS:** The survival rate was higher for endoscopic screening than those for radiographic screening and outpatients. Since a high survival rate is mainly affected by lead–time bias, the effectiveness of endoscopic screening should be further evaluated in term of mortality reduction by conducting large-scale and reliable studies.

PHS9

SCREENING FOR TYPE 2 DIABETES: A METHODOLOGICAL REVIEW AND COST ANALYSIS

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OBJECTIVES: Screening for type 2 diabetes (DM) has peaked as a controversial issue given the publication of the recent Canadian guidelines and since the clinical trial evidence for the effectiveness of DM screening is lacking. **METHODS:** A two-step evidence-based analysis was performed: 1) narrative review of international guidelines 2) systematic review of primary studies. MEDLINE, EMBASE, CINAHL, Wiley Cochrane, and Centre for Reviews and Dissemination (2008-2012) were used to identify primary studies comparing the effectiveness of DM screening to usual care. Randomized controlled trials and observational studies meeting inclusion criteria were meta-analyzed and the quality of evidence was evaluated using GRADE. A cost analysis was developed using Ontario claims data and estimating the downstream health care costs in Canadian dollars of screening in Ontario. **RESULTS:** Eight guidelines and six studies from 2,780 citations were identified. The recommendations for universal screening or screening for low to moderate risk individuals were heterogeneous, not shown for high or very high risk individuals. The guidelines consistently recommended screening for the latter. Screening was associated with a lower likelihood of retinopathy (RR: 0.54, 95% CI: 0.32-0.92) and lower absolute % HbA1c (MD: -0.32, 95% CI: -0.53, -0.11). Screening was not linked to increased anxiety or false reassurance. One large RCT showed no beneficial effect of screening on long-term mortality outcomes. Two observational studies meta-analyzed showed no beneficial effect of screening for neuropathy and nephropathy. The quality of evidence was moderate to very low. Estimated cost savings is $150.4 million dollars using established parameters, with a range of cost savings as low as $16.7 up to $280.4 million dollars in sensitivity analysis. **CONCLUSIONS:** Despite its widespread acceptance, the evidence for the long-term effectiveness of DM screening is lacking. Further clinical and cost analysis in Canada is needed for short-term outcomes to help clarify the issue.

PHS10

QUALITY OF PHARMACIST-MANAGED ANTICOAGULATION THERAPY IN LONG-TERM AMBULATORY SETTINGS: A SYSTEMATIC REVIEW

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OBJECTIVES: To perform a systematic review to evaluate the quality of anticoagulation control in outpatient pharmacist-managed anticoagulation services (PMAS) compared to routine medical care (RMC). **METHODS:** We searched MEDLINE, SCOPUS, EMBASE, IPA, CINAHL, Cochrane CENTRAL, with language restriction to English. Two authors independently reviewed each study and extracted data for all outcomes using a standardized form, with any disagreement resolved by a third author. The primary outcome was the quality of warfarin-related anticoagulation management using time in therapeutic range (TTR) as an indicator. Warfarin-related bleeding, thrombotic events and resource utilization were assessed as secondary outcomes. **RESULTS:** Of 155 articles identified, 23 articles met the criteria for final review. Of these, three studies were RCTs and twenty were observational studies. Most studies were conducted between year 2000 to 2013 (N=18, 78%), and study follow-up ranged from six to twelve months (N=13, 57%). Among studies that reported patients' age, the average age ranged from 46 to 80.5 years, and was similar between PMAS and RMC groups. The majority of patients were treated for atrial fibrillation and venous thrombosis. Quality of anticoagulation control was better in the PMAS group compared to RMC, as indicated by higher TTRs in the majority of the studies (N=21, 91%). Clinical outcomes were also favorable in the PMAS group as evidenced by lower risk of major bleeding (N=10 of 14, 71%) or thromboembolic